



GOVT OF PUDUCHERRY

PUDUCHERRY STATE HEALTH MISSION

2nd Floor, Victor Simonel Street, Old Maternity Hospital Building,
Puducherry – 605 001.

Phone: 0413-2224039; Fax: 0413-2224059; e-mail: nrhmpondicherry@yahoo.co.in

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No.: PSHM/P1/2012-13/752

Date: 03.12.2012

**TENDER NOTICE
FOR
'FULL FIELD DIGITAL MAMMOGRAPHY SYSTEM'**

On behalf of the President of India, tenders in sealed cover under two bid system (Technical and commercial bids) are invited from reputed manufacturers or their authorized dealers / importers for supply and installation of 'Full Field Digital Mammography System' in the Rajiv Gandhi Govt. Women & Children Hospital, Puducherry on turn key basis.

The non-transferable tender document can be obtained from the Puducherry State Health Mission, Victor Simonel Street, IInd Floor, Old Maternity Hospital Building Complex, Puducherry-605 001. Tender document can also be downloaded from the official web site <http://health.puducherry.gov.in>.

Last date for submission of sealed tenders is up to **4.00 P.M. on 26.12.2012**.

Opening of tenders at **10.00 A.M. on 27.12.2012** in the Training Hall, Puducherry State Health Mission, Puducherry.

**Dr. D. GURUMURTHY
MISSION DIRECTOR
PSHM**



Government of Puducherry

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OPEN TENDER

FOR

**‘FULL FIELD DIGITAL MAMMOGRAPHY
SYSTEM’**

LAST DATE FOR SUBMISSION OF TENDER : 26.12.2012

DATE FOR OPENING OF TENDER (Technical Bid) : 27.12.2012

NAME OF THE TENDERER :

GOVT. OF PUDUCHERRY
PUDUCHERRY STATE HEALTH MISSION

Terms and Conditions of tender for the supply and installation of “**Full Field Digital Mammography System**” for use in Rajiv Gandhi Govt. Women & Children Hospital, Puducherry.

1. Notice is hereby given that sealed tender in duplicate under two bid system – **Part – I Technical bid and Part – II Price bid** will be received up to **26.12.2012 at 4.00 P.M.** by the Chairman, Procurement Committee, Puducherry State Health Mission (PSHM), Puducherry. Tenders received thereafter will not be accepted.
2. Telegraphic Tender / Tender through FAX will not be considered.
3. Tenders will be opened by the Procurement Committee on **27.12.2012 at 10.00 A.M.** in the Training Hall of Puducherry State Health Mission, Victor Simonel Street, IInd Floor, Old Maternity Hospital Building Complex, Puducherry-605 001. The Tenderers or their authorized representatives may be present during the opening of tender if they desire to do so.
4. (a) The Chairman, Procurement Committee (Mission Director, PSHM) is competent to accept a tender in whole or in part.

(b) The Chairman, Procurement Committee shall have the right to reject any /all the tenders without assigning any reason thereon.
5. Every Tenderer must go through the terms and conditions carefully and understand them before submitting his tender. No excuse that the conditions have not been read or understood will be entertained later. Copy of the tender document signed in each page by the bidder shall be submitted along with the tender in token of having accepted the tender conditions.
6. **The tenderer shall be the manufacturer of the item offered. Authorized Dealer of the manufacturer and Direct Importer may also offer. The Authorized Dealer shall enclose to the tender a copy of the letter of appointment as authorized dealer issued by the**

manufacturer. The Direct Importer shall enclose to the tender a copy of the import licence issued by the competent authority. The licensee shall be the Direct Importer.

7. Company participating in the tender should have 5 years standing in the supply, erection / commissioning of the equipment. Similar equipments should have been supplied to a reputed hospital / medical college having more than 500 beds. List of colleges / Hospitals where such equipments have been supplied in the last five years should be enclosed along with performance certificate from such Hospital / College on the satisfactory maintenance of the equipment supplied / commissioned / maintained (Annexure – I). In case of imported equipment, third party inspection report from an internationally reputed third party must be produced along with the supply of the equipment, certifying that the equipment is a newly manufactured one for supply to Rajiv Gandhi Govt. Women & Children Hospital, Puducherry and not a refurbished equipment, further detailing the details of the components meant for export.

8. Rate quoted should clearly mention Two/Three years complete warranty and Five years Comprehensive Annual Maintenance Contract (CAMC) charges, thereafter. The Company offering the quote should undertake the maintenance and supply of spares during the warranty and Comprehensive Annual Maintenance Contract period. The CAMC rates shall also be taken in to account while calculating the cost of the equipment.

9. Tender should be submitted detailing the specifications of the machine. Expected specifications are given in the Schedule. When the offer is for an item having different specifications / features, functions, the difference between the item called for and the one offered by the tenderer shall be **highlighted in the offer itself. The advantages shall also be mentioned.**

10. The brochures / leaflets of product shall also be enclosed with the tender in English.

11. Any attempt on the part of the tenderer or their agent to influence the Mission will disqualify such tender.

12. The tenderer should produce attested photocopy of the current manufacturing licence issued by the competent authority including its period of validity.

13. a) Each tender must be accompanied by an Earnest Money Deposit at 2.5 % of the total cost of the equipment subject to a maximum of Rs.1.00 lakh. Otherwise, the tender will be rejected without notice. Bank guarantee or payment in any other form will not be accepted for E.M.D. The amount should only be paid either by demand draft / banker's cheque in favour of **Puducherry State Health Mission, payable at Puducherry. The Demand Draft / Banker's cheque towards EMD should be furnished along with Technical Bid. Non enclosure of EMD with the Technical Bid will result in rejection of the bid without further scrutiny.**

b) The earnest money will be returned to the unsuccessful tenderers but retained in the case of successful tenderer to be returned after obtaining Bank Guarantee towards Security Deposit required to be paid by the successful tenderer for due fulfillment of the contract.

14. The tenderer, whose tender is accepted should remit security deposit in the form of Bank Guarantee within 10 days from the date of receipt of intimation of acceptance of the tender. An amount equal to 10% of the value of estimated quantity of the selected items shall be furnished as Bank Guarantee from a Nationalized Bank for the appropriate amount towards Security Deposit valid for a period of **Six months** beyond the date of warranty period (**Annexure –II**). In respect of foreign companies 10% Bank guarantee on the basis of L.C. covering the warranty period of minimum 3 years should be produced towards Security Deposit. The successful tenderer should convey acceptance of the approved tender within 15 days from the date of receipt of approval / intimation from the Mission.

15. a) In the case of firms which are registered with the DGS&D, attested Photostat copy of the certificate issued by the DGS&D should be furnished along with the tender for exempting them from payment of security deposit / E.M.D. **Exemption will be admissible only for those items which are approved by the DGS&D. It may be noted that as registered firm, the tenderer is expected to abide by the general conditions of the contract governing the DGS&D rate contract as well as this Mission's terms and conditions, as amended from time to time. Failure on the part of tenderer to abide by the terms and conditions may result in the cancellation of the contract.**

NOTE: Exemption from payment of E.M.D./S.D is not admissible to Direct Importer irrespective of registration with the DGS&D.

16. Income Tax clearance certificate for the last five years i.e. 2007-2008 to 2011-12 should be enclosed to the tender. If the tenderer is not an Income Tax assessee, a non-assessee certificate issued by the Income-Tax Department should be enclosed. **Permanent Account Number (PAN) of Income Tax should be furnished.**

17. **In the case of imported items, the price quoted should be inclusive of Freight and Insurance charges.** The Indian customs tariff number under which the customs duty or excise duty has been assessed should also be indicated. Basic Customs Duty and Special Additional duties if any to be payable shall be mentioned clearly in the Price Bid. The tenderer should note that the Mission do not undertake to provide import licence and the acceptance of any tender shall not imply such an undertaking on the part of the Mission.

18. **(i) In case of imported items, the supplier should arrange for Customs Clearance at his/their expense.**

(ii) Demurrage charges and incidental charges if any shall be borne by the supplier.

(iii) The consignment shall be transported to the place of installation / commissioning at the risk and expense of the supplier.

19. The firms should quote the basic price of the items separately and the other taxes and duties in seriatim in the ascending order.

(a) In case of any enhancement of Taxes and / or duties or levy of fresh taxes / duties due to Statutory Act of the Govt., after date of submission of the tenders and during the contractual delivery period, additional or fresh levies so imposed will be allowed to be claimed as extra without any change in the price structure approved under the tender. For this purpose, the supplier shall produce a certificate from the authority concerned certifying that the item supplied falls under particular tariff resulting in additional / fresh levies for the supplied item.

20. Inter-State sales tax or VAT at the rate admissible in Puducherry, may be levied.

21. The rate should be quoted both in figure and in words. Special care should be taken to write the rate in figure as well as in words in such a way that interpolation is not possible.

22. No insurance charges are payable. The supply should be made at the supplier's own risk for damages and breakages occurring in transit, the articles thereof should be replaced.

23. The rate quoted should be valid for acceptance for a period of **180 days** from the date of opening of the tender and once accepted should be firm and unaltered during the contract period.

a) THE FIRMS ARE REQUIRED TO QUOTE THEIR LOWEST RATES COMPARABLE TO THE RATE QUOTED FOR OTHER INSTITUTIONS ELSEWHERE. THE QUOTED RATE, IF FOUND AT A LATER DATE TO BE HIGHER COMPARED TO THE RATES OFFERED TO ANY OTHER INSTITUTION, THE DIFFERENCE IN COST WILL BE LIABLE TO BE RECOVERED / ADJUSTED FROM THE SUBSEQUENT PAYMENTS TO THE SUPPLIER FIRM.

24. No contractor shall be allowed at any time and on any ground whatsoever, any claim for revision or modification of the rate quoted by him during the currency of the contract period. Clerical error, typographical error etc., committed by the tenderer in the tender form shall not ordinarily be considered after the opening of the tender. Conditions such as 'SUBJECT TO AVAILABILITY OF STORES' 'SUPPLIES WILL BE MADE AS AND WHEN SUPPLIES ARE RECEIVED ETC.,' will not be considered under any circumstance and the tender containing such conditions shall be summarily rejected without any further correspondence.

25. Tender not stipulating period of delivery and tender with price variation clause / subject to prior sale conditions shall be rejected.

26. **Exact amount in Indian currency should be quoted by the firms and no change at a subsequent date is allowed due to the change in the convertibility of Indian rupees.**

27. **The price to be quoted shall be "Firm" in all respects and for delivery F.O.R. destination Puducherry. Rate quoted should be without SPECIFYING ANY VALUE AND SHOULD COVER EXCISE DUTY, PACKING, FORWARDING. Transportation, all incidental charges and insurance etc. No advance payment will be made except, for import items for which L.C. has to be opened.**

28. Every correction in the tender should invariably be authenticated by the tenderer, failing which the tender will be rejected. Tender should be submitted in duplicate duly authenticated on each page of tender.

29. Test Certificate of the manufacturer should be furnished along with the supply.

30. Supply should be made within the delivery period mentioned in the tender or 2 months from the date of issue of the supply order whichever is earlier. **In case of delayed delivery, penalty at the rate of 1% per week, of cost of the items not supplied will be levied. If the delay exceeds 4 weeks the order will be treated as withdrawn; unless otherwise the delivery time is extended by the indenting officer.**

31. The equipment shall be installed and commissioned by the trained engineers of supplier – firm, free of cost. The date of supply, installation and commissioning of the machinery and equipments, should be specified.

(a) It will be imperative on the bidder to fully acquaint himself of all local conditions and factors that would have any effect on performance of the contract. The purchaser shall not entertain any request for clarifications from the bidder regarding such local conditions nor shall accept any offer conditional to the local factors. No request for any change of price or extension of time schedule of delivery of goods shall be entertained after purchaser accepts the bid.

32. **Demonstration shall be arranged free of cost after installation /supply.**

33. **Training of personnel shall be arranged at the place(s) where such equipment functions, at the expenses of the supplier.**

34. **Selection of tenders would very much depend upon the efficacy / quality of the products offered. Sample / Demonstration if required, should be produced / arranged before the Chairman at the expense of the tenderer / contractor. All articles shall be subject to inspection and acceptance or rejection by the Chairman, Procurement Committee.**

35. PAYMENT TERMS

Payment shall be made on receipt of the equipment as follows:

	In ordinary case -----	If installation made within two weeks -----
a) On installation and in good working condition	80%	85%
b) After one / two months of Installation and successful Commissioning	20%	15%

36. All items should be supplied strictly in accordance with the approved specifications. The article supplied by the contractor which in the opinion of the Chairman, Procurement Committee is faulty or unfit for use shall be rejected. The opinion of Chairman thereon in all respects will be final and conclusive and altogether operative and binding on the contractor and shall not be open or subject to question or dispute by the contractor on any ground whatsoever. If the equipment is not satisfactory and do not meet the specification offered by the firm the same will have to be removed from the institution immediately after receipt of intimation at the firm's own expenses. If not, the equipment will be sent to the firms by this Mission and the charges towards transport and other incidental charges will be recovered by enforcing the Bank Guarantee submitted.

37. The equipment / article supplied in lieu of or in substitution of rejected equipment shall in like manner be subject to inspection or rejection and removal as often as the Chairman, Procurement Committee, shall consider necessary.

38. No article bearing logo gram of any other state / UT other than that of the manufacturer will be accepted.

39. The loss to Mission, if any, incurred on account of purchase elsewhere rendered necessary by failure or neglect or refusal on the part of the contractor to supply according to the terms of the agreement will be recovered from him. If the equipment supplied by the contractor has been partially or wholly used in the offices and subsequently found to be inferior in quality or description or are not in accordance with the specification or otherwise faulty or unfit for or

unwholesome, then the contract price or prices of the equipment will be recovered from the contractor, if payment had already been made to him. Otherwise contractor will not be entitled to any payment whatsoever. For infringement of the stipulations of the contract or for other justifiable reasons, the contract may be terminated by the Chairman, Procurement Committee and the contractor shall be liable for all losses sustained by the Mission in consequence of the termination which may be recovered by enforcing the Bank guarantee of the Vendor or other money due or to become due to him. In the event of such amount being insufficient, the balance may be recovered personally from the contractor or from his properties as per the provision of the Puducherry Revenue Recovery Act, 1970 in addition to other modes of effecting recovery permissible under the law.

40. The tenderer should also quote in the quotation itself the rate for CAMC for 5 years after expiry of the warranty period. The CAMC charges shall be released on annual basis only.

41. The firm (Supplier) shall submit bill (in duplicate) along with an advance stamped receipt immediately after execution of the supply order in full for arranging payment. The payment will be made on receipt of said items at site in good condition / commissioning of the equipment and inspection of the Procurement Committee.

42. The contract should not be sublet without the permission of the Chairman, Procurement Committee. **The equipment will be kept under warranty for a minimum period of two / three years from the date of installation / commissioning.** Further the supplier should extend the technical support during the contract period. Undertaking to this effect will also be a condition for evaluating the tender.

43. The details of after sales service facilities available shall be specified Annexure III with the rates for each CAMC for the first five years at fixed rate after expiry of warranty period and this should cover all third party items also supplied by the Company. CAMC quoted will be taken to cover the third party item even if it is not mentioned so in the quote. On completion of warranty period, the Mission may enter into Comprehensive Annual Maintenance Contract with the supplier. Incase, the indentor opts to maintain the equipment through third party, the supplier shall make available all necessary spares, without affecting the functioning of the equipments for a period of 5 years after the warranty period.

44. In case of any difference or dispute arising in connection with this contract, all legal proceedings relating to the matter shall be instituted only in the court within the jurisdiction of the Union Territory of Puducherry.

45. **The tenderers should not impose their own condition. They should abide by the terms and conditions of tender call. No tender with their own condition will be considered at all under any circumstances. All documents catalogue description about the equipment etc. should be furnished along with the technical bid in English.**

46. Tender in separate sealed covers for **Technical Bid and Commercial bid** should be submitted in one single cover superscribing **“TENDER FOR SUPPLY AND INSTALLATION OF FULL FIELD DIGITAL MAMMOGRAPHY SYSTEM”** and reach Chairman, Procurement Committee, Puducherry State Health Mission, Victor Simonel Street, IInd Floor, Old Maternity Hospital Building Complex, Puducherry-605 001 **before 4.00 P.M. on 26.12.2012.**

47. The technical bids will be evaluated on the date of opening of the tender and the commercial bids of the firms, which are found to be suitable based on the technical evaluation by the procurement committee shall alone be opened for comparison and award of contract. The price bid of the firms, which were not found technically suitable shall not be opened at all for comparison. Successful bidder shall be required to enter into an agreement with the Mission in the format as at **Annexure IV.**

Dr. D. GURUMURTHY
(CHAIRMAN, PROCUREMENT COMMITTEE)
PUDUCHERRY STATE HEALTH MISSION

DECLARATION

(To be submitted duly filled in and signed along with Technical Bid)

1. Name and Address of the Tenderer / Firm :

2. a. Name & Address of the manufacturer :
(in case the Tenderer is the manufacturer)

b. If the Tenderer is not the manufacturer, :
whether he is the authorized dealer /
authorized stockiest (If answer to (b)
is yes. Copy of letter of authorization /
dealership to be enclosed)

3. Whether copy of the Manufacturing licence :
issued to the Manufacture by the competent
Authority is enclosed along with the list of
items

4. If the Tenderer is the Direct Importer, :
copy of the Import Licence with list of items
imported to be enclosed

5. Please enlist quality control facility available :
with the firm

6. Are the instruments/equipments manufactured :
available in the local market? If so give the
name of the retail outlet

7. How many people are employed in your firm :

8. Name of your bankers and address of the :
Persons on whose name the account is opened

9. a) Whether registered with DGS&D? :
(Enlistment certificate to be enclosed)

b) Whether **permanently** registered with :

(i) NSIC
or
(ii) SSIC / Industries Department, Puducherry? :
(Permanent registration to be enclosed)

10. a) Whether EMD is enclosed? :
- b) If so, details :
11. Are you in the approved list of suppliers to the other Government organizations? :
If so, give details (Copies of the letters received from those Departments, in which your name has been included)
12. Any other documents to confirm reliability of the tenderer firm :
13. Have you attached the Income Tax Clearance Certificate for the period 2007-08 to 2011-12/ Non-Assessee Certificate :
- (a) PAN number of Income Tax :
14. No. of items quoted :

I / We, the _____
do hereby declare that we have carefully, read all the conditions of the Tender Schedule of Puducherry State Health Mission (PSHM), Puducherry for the Tender floated for the supply of Digital Mammography Unit to Rajiv Gandhi Govt. Women and Children Hospital in Union Territory of Puducherry and agreed to abide by the terms and conditions prescribed in the tender schedule.

SIGNATURE :

SEAL OF THE FIRM :

Annexure-I

PROFORMA FOR PERFORMANCE STATEMENT
(For the period of last three years)

Tender No.

Date of Opening:

Time:

Name and address of the bidder:

Name and address of the manufacturer:

Order placed by (full address of Purchaser with phone number)	Order number and date	Description and quantity of ordered goods	Date of completion of Contract	Have the goods been functioning Satisfactorily

Signature and seal of the bidder

Annexure-II

PERFORMANCE SECURITY FORM (BANK GUARANTEE)

To
The President of India
Through, The Mission Director,
Pondicherry State Health Society,
2nd Floor, Victor Simonal Street,
Old Maternity Hospital Complex,
Puducherry 605 001.

Whereas..... (name and address of the supplier) (hereinafter called “the supplier”) has undertaken, in pursuance of contract No..... dated.....2012 to supply (description of goods and services (hereinafter called “the contract”).

And whereas it has been stipulated by you in the said contract that the supplier shall furnish you with a bank guarantee by a recognized bank for the sum specified therein as security for compliance with its obligations in accordance with the contract.

And whereas we have agreed to give the supplier such a bank guarantee.

Now therefore we hereby affirm that we are guarantors and responsible to you, on behalf of the supplier, up to a total of(amount of the guarantee in words and figures), such sum being payable in the types and proportions of currencies in which the contract price is payable, and we undertake to pay you, upon your first written demand declaring the supplier to be in default under the contract and without cavil or argument, any sum or sums within the limits of (amount of guarantee) as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the supplier before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the contract to be performed there under or of any of the contract documents which may be made between you and the supplier shall in any way release us from any liability under this guarantee and we hereby waive notice of any such change, addition or modification.

This guarantee shall be valid for the entire period of warranty from the date of completion of order.

Place and Date
guarantor

Signature and seal of the

Annexure – III

DECLARATION

On

Manufacturing facilities / After Sales Service

Tender enquiry No

For supply of

- 1 Name of the bidder
- 2 Full Postal Address
- 3 Telephone No./Fax No.
- 4 Email address
- 5 Date of inception of business
- 6 Registration no. & Date
- 7 Issued by
- 8 Valid till
- 9 Details of manufacturing activity & item wise capacity
- 10 Detail of After Sales Service facilities available locally
Name of the Agency

Full Postal Address

Phone / Fax / E-mail
- 11 Name of person responsible for 10 above

Sl No.	Name	Designation	Age	Residential Address

- 12 Has the bidder ever been black listed by any govt. agency? If yes, give details
- 13 Has any cases pending in the court related to any supplies? If yes, give details

14 Does the firm have the adequate facilities for inspection and quality control? Please give details

I, _____ Proprietor/ Partner /Director of
M/s _____ hereby declare that the information given in this form is true and correct to the best of my knowledge & belief. I/we agree to the tender Inviting Authority forfeiting the Earnest Money Deposit and/or Performance Security Deposit and blacklisting us for a period of 5 years, if any information furnished by us proved to be false at the time of inspection and non – compliance with terms and conditions of the contract

I offer to supply the items mentioned in the schedule (enclosed in price bid) at the rates quoted therein. I agree to hold this offer for one year after finalization of rate contract.

Signature

Name of the bidder

Address

Dated:

Annexure-IV

CONTRACT FORM

(To be stamped as an agreement in the court stamp paper valued Rs. 100/-)

This agreement made theday of..... 2012 between the President of India through the Mission Director, Puducherry (hereinafter "the purchaser") of the one part and (name of supplier) of (address, city and country of supplier) (hereinafter "the supplier") of the other part.

Whereas the purchaser is desirous that certain goods and ancillary services, viz. (brief description of goods and services) and has accepted a bid by the supplier for supply of those goods and services in the sum of (contract price in words and figures) (hereinafter "the contract price").

Now this Agreement witnesses as follows:

01.The following documents shall be deemed to form and be read and construed as part of this agreement, viz.:

(a) Bid Document

02. In consideration of the payments to be made by the purchaser to the supplier as hereinafter mentioned, the supplier hereby covenants with the purchaser to provide the goods and services and to remedy defects therein in conformity in all respects with the provisions of the contract.

03.The purchaser hereby covenants to pay the supplier in consideration of the provision of the goods and services and the remedying of defects therein, the contract price or such other sum as may become payable under the provisions of the contract at the times and in the manner prescribed by the contract. Brief particulars of the goods and services which shall be supplied/provided by the supplier are as under:

Sl. No.	Brief description of goods / services	Quantity to be supplied	Unit price	Delivery terms (FOB/CIF/FOR etc)

Total value:

Delivery schedule:

In witness whereof the parties hereto have caused this agreement to be executed in accordance with their respective laws the day and year first above written.

Signed, sealed and delivered by the said..... (for the purchaser)

in the presence of

Signed, sealed and delivered by the said (for the supplier)

in the presence of.....

SCHEDULE

TECHNICAL SPECIFICATIONS FOR FULL FIELD DIGITAL MAMMOGRAPHY

1. Should be an advanced high-end digital mammography machine which allows fast, low-dose, high-quality 3D imaging of the breast.

2. System should be upgradable with latest technology available in future.

1. Gantry assembly:

- The system should consist of a tube head and detector assembly that has isocentric rotation for every positioning. The angle of C-arm movement shall be displayed.
- The isocentric movements should be motorized. The patient Compression device should have automatic multispeed variable compression system which senses the breast density and adjust the compression force.
- Magnification devices of ratio 1.5 and 1.8 x should be offered.
- At least a pair of two foot switches should be provided for compression.
- Digital display of motorized and manual compression force and compression thickness should be available on either side of gantry.
- Grid ratio should be mentioned. Mention about grid/breast support assembly system.
- The compression should be extremely smooth and there should be automatic decompression at the end of each exposure.
- There should be a safety mechanism for compression with respect to power failure.
- Two compression paddles for small and large breasts with Regular sliding movement.
- Round spot and square spot compression paddle or equivalent.

2. X-Ray Generator:

The X-ray generator should be high frequency with the following parameters:

- kV range: at least 20-35 kV in steps of 1 kV.
- mAS range: 2-500 mAS or more.
- Exposure time: 10ms – 4 sec. or better.
- Maximum mA: 200 mA or higher.
- Exposure parameters should be displayed.
- Should display the dose delivered after each exposure.
- Automatic exposure control device should be provided.

3. X-Ray tube Unit:

- Dual focus rotating anode tube with Focal spot size: 0.1 mm and 0.3 mm.
- Anode heat storage capacity should be at least 150 KHU or higher.
- Please mention the material of anode and advantages. Mono material preferred.
- Should have at least two filters. Please mention the material used in the filter and its thickness.
- Tube heat storage capacity of 2 MHU or more.

4. Flat panel detector:

- Type of detector: should be amorphous selenium.
- Direct Capture Technology.
- Detector size: 24cm x 29cm or more with two image format.
Please mention the expected life time of the detector.
- Pixel Size: 85u or less. Lower will be preferred.
Image matrix in pixels: large size 3K x 3.5K or more Small Size: 2K x 2.5K or more.
No Ghosting or lag effect should be present; image depth should be at least more than 12 bits.

5. Digital acquisition system:

- Storage capacity should be 10000 image or more.
- Should provide Dual 5 Megapixel Grayscale medical grade LCD image monitor with high luminance.
- State of art associated software technology should be available with the data acquisition system. Kindly mention the features advantages and upgradability.
- It should be possible to receive the demographic patient data directly from Hospital Information System. The demographic patient data should also be able to be entered manually. Retrieval of images from CD, DVD or PACS should be possible.
- It should be DICOM ready and mention the facilities related to connectivity.
- Film prints and CD, DVD copying should be possible.
- Dry Laser camera with at least 3 online film trays compatible for film sizes of 11x14 and 14x17 inches, 500 dpi or more for printing the digital images should be supplied. System should allow user to take print out in user defined format.
- Latest technology: Highly effective computer aided detection (CAD) digital mammography solution for early detection of cancer. There should be advanced technology for identification of micro calcification and suspicious lesions.

6. Review Work station:

- High performance Dual Processor CPU with clock speed 3 GHz or higher. (Branded company product).
- Memory of 4 GB High Speed RAM or better.
- Local image storage of min 1TB or higher.
- Video board resolution of 1024 grey levels (10 bit).
- Monitor Resolution 5000 x 5000 pixel.
- Dual high contrast resolution 5MP LCD medical grade monitors should be provided (Branded company product).
- Multi modality viewer capability for display of ultra sound x-ray, digital mammography, MRI, PET, CT, etc.

The following imaging processing should be possible on the work station:

- a. Measurements, distance angle.
- b. Zoom, roam, magnification, Quadrant zooming or selected zooming.
- c. Brightness and contrast.
- d. Image inversion.
- e. Contrast enhancement processing.
- f. Flip rotate inward.
- g. Annotations, measurements.
- h. Image evaluation like contrast enhancement histogram display, length measurements before and after comparison etc.

User selectable screen layout from the available combination.

There should be a CD, DVD ROM drive available.

7. Diagnostic review software to be available:

- Advanced mammography specific hanging protocols.
- Customizable user environment including hanging protocols.
- Advanced Session Scheduling function.
- Easy image export to communication graphic format for use in presentations.
- Intelligent Roaming.

8. Others:

1. Should be supplied with transparent lead radiation shield, face shield, remote service modem, quality control tool kit, user manual, technical documentation, etc.
2. Dedicated online UPS (Branded company product) for the entire machine and accessories supplied including the work station shall be provided for a minimum backup of at least 30 minutes.
3. Should be supplied with ACR phantom, phantom for calibration of AEC, phantom for calibration of image detector.
4. The digital mammography unit with all features as per specification shall be FDA / CE approved and if other international standard certificates are available should be mentioned.
5. The company should provide 2-3 years complete Warranty for the entire unit and accessories.
6. Please quote comprehensive AMC after the Warranty period including X-ray tube & other necessary accessories for the next 5 years.

9. Turn Key:

Complete turn key work for the site preparation including false ceiling cable ducting lighting earthing lead lining on the doors and all other works required for the installation of the equipment need to be done by the supplier.

10. Training:

- (i) Two days training for mammography interpretation should be arranged for two Radiologists in the nearby available centre.
- (ii) Onsite training for four Radiographers should be arranged for 3 days.